

## Lesson 18; Newton's laws (part 1)

Warm up: Socratic jstuart, An object with unbalanced forces acting on it

A. Accelerates, B.Changes speed, C.Changes direction, D. All of the above

Objectives: To introduce Newton's laws project.

Homework: Work on Newton's laws project, be ready to present in 2 lesson's time.

Activities:

1. Finishes forces work, answer to questions and brainpop.
2. Watch Newton's laws brainpop
3. Introduction to project (check in yellow class for anyone leaving early.)
4. Work on project:  
(Forces felt in a car journey; title and date, on time, accelerating, decelerating, constant speed)
  - a. Make sure you understand the law /questions (Brainpop/ textbook)
  - b. Assign roles
    - a. Plan

## Lesson 19: Newton's Laws (part 2)

Warm up:

To jstuart, socratic. What is the hardest part of the Newton's law project (one answer per group)

Homework: Work on Newton's laws project, be ready to present next lesson.

Activities:

1. Show one of the ESA clips
2. Make foldable (page 549)
3. Work on project:

Do you understand the law/ statements? Elaborate or clarify

- a. What notes will you get students to make? **You need to have put these notes onto your foldable by the end of the lesson.**
- b. What makes good teaching? How can you make sure you are a good teacher
- c. Elaborate or clarify your part to the rest of your group  
**ESA 1<sup>st</sup> law**  
**<https://www.youtube.com/watch?v=Q0Wz5P0JdeU>**  
**ESA 2nd law , straw experiment**

<https://www.youtube.com/watch?v=WzvhuQ5RWJE>  
ESA 3<sup>rd</sup> law with Newton's cradle  
[https://www.youtube.com/watch?v=cP0Bb3WXJ\\_k#t=158](https://www.youtube.com/watch?v=cP0Bb3WXJ_k#t=158)

Lesson 20: Newton's Laws (part 3)

Warm up: 5 minutes final presentation prep.

Homework: No homework.

1. Go through rubric, (stress everyone needs to speak and that they should be prepared to ask and answer questions, especially if they have not already filled in the elaborate and clarify section.)
2. Listen to presentations
3. Start Newton's laws worksheet if time. (put them in different groups for this so each group has an expert from each law or someone who looked at the statements.)